

PONY



Maths

For The Primary Stage



4^{th.}

Primary
Exercises

First Term 2018

Unit 1

Large Numbers and Operations on them

- | | |
|-----------|---------------------------------------------|
| Lesson 1: | Hundred thousands |
| Lesson 2: | Millions, Ten Millions and Hundred Millions |
| Lesson 3: | Milliards (Billions) |
| Lesson 4: | Operations on Large Numbers |

Exercise

Hundred Thousands

Write in words

300 000

680 001

800 111

528 030

645 300

204 550

602 148

701 405

458 201

245 120

457 123

150 150

200 100

999 999

-Write in digits:

Two hundred thousand

Nine hundred thousand

Four hundred and three thousand

Nine hundred and six thousand

Seven hundred and ninety thousand

Two hundred and forty thousand

Four hundred thousand and one

Eight hundred thousand and twenty

One hundred thousand and six hundred

Nine hundred five thousand and two

Seven hundred two thousand and eleven

Four hundred and thirty one thousand

Six hundred thirty thousand and four hundred

Two hundred twenty thousand , nine hundred and three

Three hundred thousand , two hundred and eighty

Five hundred one thousand , six hundred and thirty four

Two hundred twenty two thousand , four hundred and fifteen

Seven hundred eighty two thousand , eight hundred and sixty nine

Nine hundred ninety nine thousand , nine hundred and ninety nine

One hundred thousand and one

Put the suitable sign ($<$, $>$ or $=$) :

a $233\ 467$ $233\ 164$

b $437\ 786$ $437\ 876$

c $345\ 678$ $340\ 678$

d $132\ 045$ $93\ 245$

e $581\ 205$ 85 thousands and 205

f One hundred thousand 99 999

g Three hundred twenty-six thousand, five hundred and forty 326 450

h $401\ 017$ four hundred one thousand and seventeen

Write the greatest and the smallest number that can be formed from the number cards in each of the following as the example :

a $6\ 2\ 8\ 5\ 1\ 7$ - The greatest number is _____

- The smallest number is _____

b $4\ 1\ 5\ 3\ 2\ 6$ - The greatest number is _____

- The smallest number is _____

c $5\ 0\ 8\ 3\ 7\ 2$ - The greatest number is _____

- The smallest number is _____

Underline the number in digits expressing the on in words

- a** Two hundred seventy-eight thousand , six hundred and twenty-eight.
(278 682 or 278 628 or 278 862 or 287 628)
- b** Seventy thousand , five hundred and ninety-three.
(70 593 or 700 593 or 59 370 or 750 093)
- c** Six hundred three thousand and eight.
(600 308 or 600 038 or 60 308 or 603 008)
- d** Two hundred thousand , seven hundred and two.
(200 720 or 200 702 or 200 207 or 270 000)

Write the place value of the circled digit in each number

- a** 8⑨6 325 →
- b** 543①92 →
- c** 157 3④2 →
- d** 156 2③9 →
- e** 6⑤810 →
- f** 2⑥371 →

Complete

- a** 516 853 = 516 000 + 853
= 500 000 + 10 000 + 6 000 + 800 + 50 + 3
- b** 298 676 = 298 000 +
= + + + +
- c** 126 459 = +
= + + + +
- d** 35 608 = +
= + + +

Write each of the following numbers :

- a** The greatest 5-digit number.
- b** The greatest number formed from 6 digits.
- c** The smallest number formed from 6 digits.
- d** The greatest number formed from 6 different digits
.....
- e** The smallest number formed from 6 different digits
.....
- f** The greatest different 6-digit number and their sum is 15
.....
- g** The smallest different 6-digit number and their sum is 17
.....
- h** The greatest different 6-digit number and the sum
of its units and tens digits is 7
.....
- i** The smallest different 6-digit number and the sum
of its units and tens digits is 7
.....

1 [a] Read the following numbers and write them in letters :

(1) 764 921

(2) 503 886

(3) 981 012

[b] Write the following numbers in digits :

(1) Five hundred thirty-seven thousand , six hundred and nine.

(2) Eight hundred thousand and eighteen.

(3) Four hundred forty thousand , nine hundred and nineteen.

2 Complete each of the following :

[a] $68\ 357 = 60\ 000 + \dots + 300 + \dots$

[b] $369\ 017 = \dots + \dots + 9\ 000 + \dots$

[c] $\dots = 10\ 000 + 800 + 0 + 7$

[d] $\dots = 500\ 000 + 40$

3 Put (<), (=) or (>) :

[a] $618\ 501 \square 681\ 501$

[c] $752\ 102 \square 75\ \text{thousand and } 102$

[b] $19\ \text{thousands} \square 19\ 000$

[d] $982\ 134 \square 982\ \text{thousand and } 134$

4 [a] From the following number cards , write the greatest and the samilest number that can be formed :

6 2 5 9 8 1

(1) The greatest number is : (2) The smallest number is :

[b] Arrange the following numbers in an ascending order :

(1) 378 562 , 487 652 , 827 153 and 345 796

The order is :

(2) 212 112 , 121 122 , 221 112 and 112 212

The order is :

5 [a] Write the value of the circled digit in the following :

(1) 51③749 →

(2) ④97 668 →

[b] Write the place value of the digit 7 in the following :

(1) 476 089 →

(2) 680 754 →

Exercise

2

Millions, Ten Millions and Hundred Millions

Write in words

1 000 000

one million

145 000 000

one hundred and forty five million

2 800 111

two million eight hundred and eleven

4 204 550

four million two hundred and four thousand five hundred and fifty

45 458 201

forty five million four hundred and fifty eight thousand two hundred and one

10 245 120

ten million two hundred and forty five thousand one hundred and twenty

200 457 123

two hundred and four thousand five hundred and seventy one hundred and twenty three

615 123 456

six hundred and fifteen thousand one hundred and twenty three thousand four hundred and fifty six

80 140 200

eighty thousand one hundred and forty two hundred

100 000 002

one hundred million and two

20 000 020

twenty thousand and twenty

3 000 100

three thousand and one hundred

Write in digits:

Two million

000 000 000 000 000 000

Five million and nine hundred thousand

000 000 000 000 000 000

Eight million and Nine hundred six thousand

000 000 000 000 000 000

Two million and three hundred forty six thousand

000 000 000 000 000 000

Ten million, one thousand, six hundred and two

000 000 000 000 000 000

Twenty five million, seven hundred nine thousand and eleven

000 000 000 000 000 000

Thirty seven million, six hundred thirty thousand and four hundred

000 000 000 000 000 000

Forty nine million, two hundred twenty five thousand, nine hundred and three

000 000 000 000 000 000

Two hundred thirty two million, five hundred one thousand, six hundred and thirty four

000 000 000 000 000 000

Complete :

a 564 253 601 \longrightarrow million, thousand and

b 2 687 570 \longrightarrow million, thousand and

c 73 421 685 \longrightarrow million, thousand and

d = 840 million + 627 thousand + 254

e = 6 million + 412 thousand + 576

f = 4 million + 4 thousand + 4

g = 304 million + 24

Complete :

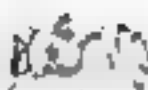
a 6 548 423 = + + + + + +

b 35 912 450 = + + + + + +

c = 40 000 000 + 7 000 000 + 300 000 + 70 000 + 1 000 + 600 + 5

d = 70 000 000 + 30 000 + 4 000 + 30 + 1

e = 500 000 000 + 1 000 000 + 500 000 + 80 000 + 2 000 + 900 + 40 + 1



Choose the correct answer

- ☐ a The place value of the digit 2 in the number 245 080 701 is
(millions or ten millions or hundred millions or hundred thousands)
- ☐ b The place value of the digit 6 in the number 64 579 328 is
(millions or hundred thousands or ten millions or hundred millions)
- ☐ c The value of the digit 9 in the number 945 200 300 is
(9 000 000 or 900 000 000 or 90 000 000 or 900 000)
- ☐ d The value of the digit 5 in the number 2 456 300 is
(5 millions or 50 millions or 50 thousands or 500 thousands)
- ☐ e The value of the digit 7 in the number 278 554 321 is
(7 millions or 70 millions or 700 millions or 7000 millions)

Put the suitable sign (< , > or =) :

- ☐ a 37 458 210 ☐ 73 519 456 ☐ b 5 000 thousands ☐ 5 millions
- ☐ c 9 854 705 ☐ 11 012 314 ☐ d 100 thousands ' 100 ten thousands
- ☐ e 3 million , 63 thousand and 217 3 063 217
- ☐ f 94 132 740 ☐ 94 million , 132 thousand and 74

Write the value of the underlined digit according to its place

- ☐ a 58 4 86 098 →
- ☐ b 6 2 478 300 →
- ☐ c 2 4 041 683 →
- ☐ d 41 69 1 403 →
- ☐ e 669 0 84 422 →
- ☐ f 30 303 333 →



1 Complete each of the following :

[a] 235 million , 160 thousand and 478 =

[b] = 37 million , 215 thousand and 378

[c] 67 000 590 = millions + thousands
+ hundreds + tens + units

[d] = 3 millions + 10 thousands + seven hundreds + 5 tens + 8 units

[e] 342 million = thousands

2 Put (<) , (=) or (>) :

[a] 8 954 507 8 945 507 [d] 100 hundred thousand 10 millions

[b] 51 400 245 51 400 542 [e] 9 000 000 + 385 217 9 385 271

[c] 5 millions 500 000

3 Write the value of the underlined digit according to its place in the number :

[a] 8 5 607 341 →

[c] 4 5 92 678 →

[b] 9 65 743 842 →

[d] 976 8 52 341 →

4 [a] Arrange in an ascending order :

6 385 712 , 4 835 172 , 5 932 648 and 6 358 217

The order is :

[b] Arrange in a descending order :

580 600 708 , 600 580 708 , 708 600 508 and 708 508 800

The order is :

5 Choose the correct answer :

[a] 700 000 000 + 80 000 000 + 3 000 000 + 70 + 1 =

(783 071 000 or 783 710 000 or 783 000 071)

[b] The value of the digit 5 in the number 3 521 068 is

(5 000 000 or 500 000 or 50 000)

[c] Ten million is the smallest number formed from digits.

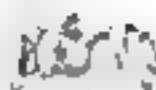
(7 or 8 or 10)

[d] Three million , three thousand and three is written as

(3 030 003 or 3 003 30 or 3 003 003)

[e] The digit that represents the million in the number 46 835 719 is

(4 or 8 or 6)



Exercise

Milliards (Billions)

Write in words

1 000 000 000

3 400 000 000

52 320 000 500

3 000 650 000

4 145 000 000

4 204 550 002

6 000 256 021

92 356 000 457

12 701 405 540

212 212 556 000



-Write in digits:

Two milliard

Five milliard and nine million

Seventy milliard , two hundred and sixteen million

Eight milliard five million six thousand and two hundred

Twenty milliard, five million and sixty two thousand

Thirty milliard , ninety million , fifty thousand and forty five

Nine milliard, forty five million , nine hundred sixty five thousand and eight.

Sixteen milliard , Two hundred fifty million, three hundred forty six thousand and twenty

Ten milliard, sixty five million , two thousand and three hundred

Four milliard , three hundred sixteen thousand two hundred and one

Two milliard, four hundred thirty six million , five hundred sixty two thousand , five hundred and thirty two

Five milliard , two hundred thirty two million , five hundred one thousand , six hundred and thirty four

Ninety nine milliard, nine hundred ninety nine million , nine hundred ninety nine thousand , nine hundred and ninety nine

Eleven milliard, eleven million ,eleven thousand and eleven

One milliard, ten million, one hundred thousand and one



Write the value of the underlined digit according to its place in the number :

a 8 200 400 173 →

b 8 121 400 500 →

c 9 241 530 400 →

d 53 987 140 111 →

Complete :

a The place value of the digit 7 in the number 7 321 521 800 is

b The place value of the digit 0 in the number 5 321 041 758 is

c The place value of the digit 2 in the number 9 152 747 180 is

Read the following numbers and complete

a 7 101 264 372 → , milliard , , million , , thousand and

b 8 719 645 302 → , milliard , , million , , thousand and

c 2 100 931 000 → , milliard , , million , , thousand and

d 6 539 006 475 → , milliard , , million , , thousand and

Put the suitable sign [$<$, $>$ or $=$]

a 9 341 200 519 9 341 200 509 **b** 1 307 458 210 1 307 548 210

c 6 420 111 715 642 011 171 **d** 7 100 600 200 8 milliard

e One milliard 999 999 999 **f** 3 milliard 300 millions

g 7 000 millions 7 milliard

Arrange the following numbers in an ascending and a descending order .

3 822 839 200 , 100 209 891 , 17 933 222 918 and 1 321 412 621

The ascending order is :

The descending order is



1 Complete each of the following :

[a] 8 532 674 109 = milliard + million + thousand +

[b] 31 512 924 760 = milliard + million + thousand +

[c] 6 000 210 000 = milliard + thousand

[d] 802 000 000 020 = milliard +

2 Write :

[a] The value of the underlined digit

(1) 1 151 515 151 →

(2) 20 987 655 143 →

[b] The place value of the underlined digit

(1) 35 987 643 201 →

(2) 572 100 634 899 →

3 Put (<), (=) or (>) :

[a] 7 456 789 012 8 milliards [c] 93 163 058 472 93 136 401 742

[b] 10 milliards 10 000 millions [d] 80 hundred thousands 60 milliards

4 [a] Arrange the following numbers in an ascending order :

7 521 439 528 , 7 125 943 528 , 7 milliards and 7 095 348 951

The order is :

[b] Write the following numbers in letters :

(1) 8 973 265 413

(2) 25 706 485 980 ~

5 Join the two cards which express the same number :

5 214 375 600

Five million, two hundred fourteen thousand, six hundred and seventy-five

5 214 675

Five hundred twenty one million, four hundred thirty seven thousand, five hundred and sixty

52 146 375

Five milliard, two hundred fourteen million, three hundred seventy five thousand and six hundred

521 437 560

Fifty two million, one hundred forty six thousand, three hundred and seventy-five.

Exercise

Operations on Large Numbers

*Addition & Subtraction*Add:

$$\begin{array}{r} 5378558 \\ + 8200272 \\ \hline \end{array}$$

$$\begin{array}{r} 5648289 \\ + 350708 \\ \hline \end{array}$$

$$\begin{array}{r} 4560072 \\ + 4412788 \\ \hline \end{array}$$

$$\begin{array}{r} 7875664 \\ + 7880006 \\ \hline \end{array}$$

$$\begin{array}{r} 9560085 \\ + 879923 \\ \hline \end{array}$$

$$\begin{array}{r} 8402030 \\ + 1498274 \\ \hline \end{array}$$

$$4\,858\,443 + 451\,336 =$$

$$55\,424\,409 + 24\,466\,999 =$$

$$99\,999\,999 + 1 =$$

$$25\,899 + 569\,658 + 6\,745\,970 =$$

Subtract:

$$\begin{array}{r} 9370508 \\ - 8700277 \\ \hline \end{array}$$

$$\begin{array}{r} 5347389 \\ - 890708 \\ \hline \end{array}$$

$$\begin{array}{r} 4950012 \\ - 1412788 \\ \hline \end{array}$$

$$\begin{array}{r} 7870604 \\ - 880006 \\ \hline \end{array}$$

$$\begin{array}{r} 9062082 \\ - 879928 \\ \hline \end{array}$$

$$\begin{array}{r} 8202020 \\ - 1498774 \\ \hline \end{array}$$

$$4\,058\,443 - 891\,836 =$$

$$95\,424\,409 - 74\,466\,999 =$$

$$2\,509\,899 - 569\,698 =$$

$$1\,000\,000\,000 - 1 =$$



Put the suitable sign (<, > or =):

a $8\ 083\ 106 - 741\ 315$ ☐ $7\ 341\ 791$

b $999\ 999 + 1$ ☐ 1 million

c $1\ 000\ 001 - 1$ ☐ 1 ten million

d $44\ 302 + 5\ 698$ ☐ 50 thousands

e $587\ 813 + 6\ 541\ 389$ ☐ $9\ 875\ 941 - 2\ 746\ 739$

f $7\ 845\ 200 - 5\ 643\ 522$ ☐ $2\ 145\ 672 + 403\ 562$

g $5\ 984\ 531 + 4\ 403\ 564$ ☐ the greatest 7 digit number

h $7\ 342\ 109 - 6\ 318\ 553$ ☐ the smallest 7 different digit number

Complete :

a $3\ 256\ 712 +$ $- 7\ 807\ 300$ **b** $3\ 108\ 721 -$ $= 2\ 857\ 101$

b $+ 7\ 618\ 149 = 10\ 869\ 183$ **c** $4\ 808\ 199 = 3\ 121\ 703$

c $9\ 256\ 000 -$ $- 5\ 312\ 989$ **d** $- 7\ 218\ 305 = 6\ 977\ 455$

The ministry of Health vaccinated 9 876 543 children last year and 8 456 783 children this year

Calculate the total number of the vaccinated children

If the budget allocated to support drinking water increased in two consecutive years from 270 000 pounds to 750 000 pounds. Find the amount of the increase

If the budget allocated to support medicine in two consecutive years increased from 4 543 000 pounds to 8 586 000 pounds to preserve the prices of medicine Find the amount of the increase

A factory produced 2 987 543 toys in one year The next year, the factory produced 3 267 594 toys Find the difference between the production in the two years.

If the distance between Cairo and Alexandria is 220 000 m Ahmed travelled 135 000 m from it find the left distance to Alexandria

Sara had L E. 2 000 000 she bought a car for L E 235 861 and a mobile for L E 2 500 Find the remainder money with her



1) Complete

$7 \times 1 = \dots$

$7 \times 2 = \dots$

$7 \times 3 = \dots$

$7 \times 4 = \dots$

$7 \times 5 = \dots$

$7 \times 6 = \dots$

$7 \times 7 = \dots$

$7 \times 8 = \dots$

$7 \times 9 = \dots$

$7 \times 0 = \dots$

$7 \times 10 = \dots$

$7 \times 100 = \dots$

$\dots \times 1 = 7$

$7 \times \dots = 35$

$\dots \times 9 = 63$

$\dots \times 2 = 14$

$7 \times \dots = 42$

$\dots \times 10 = 70$

$\dots \times 3 = 21$

$7 \times \dots = 49$

$\dots \times 0 = 0$

$\dots \times 4 = 28$

$7 \times \dots = 56$

$\dots \times 6 = 42$

$8 \times 0 = \dots$

$8 \times 4 = \dots$

$8 \times 8 = \dots$

$8 \times 1 = \dots$

$8 \times 5 = \dots$

$8 \times 9 = \dots$

$8 \times 2 = \dots$

$8 \times 6 = \dots$

$8 \times 10 = \dots$

$8 \times 3 = \dots$

$8 \times 7 = \dots$

$8 \times 8 = \dots$

$\dots \times 0 = 0$

$8 \times \dots = 64$

$\dots \times 5 = 40$

$\dots \times 2 = 16$

$8 \times \dots = 80$

$\dots \times 7 = 56$

$\dots \times 4 = 32$

$8 \times \dots = 8$

$\dots \times 9 = 72$

$\dots \times 6 = 48$

$8 \times \dots = 24$

$\dots \times 8 = 64$



1 Find the result of each of the following :

[a]
$$\begin{array}{r} 5\ 2\ 3\ 7\ 5\ 8\ 4 \\ +\ 3\ 1\ 4\ 9\ 0\ 3\ 6 \\ \hline \end{array}$$

[b]
$$\begin{array}{r} 8\ 7\ 6\ 0\ 3\ 2\ 7 \\ -\ 5\ 1\ 4\ 7\ 1\ 5\ 4 \\ \hline \end{array}$$

[c] $8\ 247\ 513 + 1\ 752\ 486 =$

[d] $9\ 706\ 843 - 3\ 198\ 257 =$

2 Complete :

[a] $543\ 214 -$ $= 271\ 599$ [b] $+ 2\ 463\ 529 = 7$ millions

[c] The place value of the circled digit in the number $5\textcircled{4}\ 375\ 219$ is

[d] The smallest number formed from the digits $7, 2, 8, 3, 5, 9$ and 4 is

[e] The greatest 8-digit number is

3 In a year $1\ 576\ 024$ tourists visited Cairo Tower and in the next year $2\ 159\ 817$ tourists visited it.

Find the total number of tourists in the two years.

4 Put ($>$), ($=$) or ($<$) :

[a] $132\ 045$ $93\ 245$ [b] $574\ 317 + 425\ 683$ one million

[c] $437\ 786$ $437\ 876$

[d] One billion $- 375\ 248\ 167$ 7 hundred thousand

5 A factory produces $2\ 863\ 945$ cans of soft drinks in a month and in the second month, the factory produces $3\ 694\ 273$ cans. Find the difference between the production in the two months.



Find :

$$\begin{array}{r} 53 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 28 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 342 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 451 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 364 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 207 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 484 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 455 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 335 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 287 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 269 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 123 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5144 \\ \times 5 \\ \hline \end{array}$$

5 1 4 4 5

$$\begin{array}{r} 3052 \\ \times 6 \\ \hline \end{array}$$

3 0 5 2 6

$$\begin{array}{r} 4135 \\ \times 2 \\ \hline \end{array}$$

4 1 3 5 2

$$\begin{array}{r} 2307 \\ \times 8 \\ \hline \end{array}$$

2 3 0 7 8

$$\begin{array}{r} 51744 \\ \times 3 \\ \hline \end{array}$$

5 1 7 4 4 3

$$\begin{array}{r} 35052 \\ \times 2 \\ \hline \end{array}$$

3 5 0 5 2 2

$$\begin{array}{r} 48135 \\ \times 4 \\ \hline \end{array}$$

4 8 1 3 5 4

$$\begin{array}{r} 22307 \\ \times 5 \\ \hline \end{array}$$

2 2 3 0 7 5

$$\begin{array}{r} 48002 \\ \times 5 \\ \hline \end{array}$$

4 8 0 0 2 5

$$\begin{array}{r} 56117 \\ \times 4 \\ \hline \end{array}$$

5 6 1 1 7 4

$$\begin{array}{r} 66332 \\ \times 3 \\ \hline \end{array}$$

6 6 3 3 2 3

$$\begin{array}{r} 44800 \\ \times 2 \\ \hline \end{array}$$

4 4 8 0 0 2



Find :

$$\begin{array}{r} 53 \\ \times 12 \\ \hline \end{array}$$

+

$$\begin{array}{r} 36 \\ \times 14 \\ \hline \end{array}$$

+

$$\begin{array}{r} 45 \\ \times 23 \\ \hline \end{array}$$

+

$$\begin{array}{r} 49 \\ \times 43 \\ \hline \end{array}$$

+

$$\begin{array}{r} 28 \\ \times 19 \\ \hline \end{array}$$

+

$$\begin{array}{r} 58 \\ \times 39 \\ \hline \end{array}$$

+

$$\begin{array}{r} 49 \\ \times 27 \\ \hline \end{array}$$

+

$$\begin{array}{r} 79 \\ \times 53 \\ \hline \end{array}$$

+

$$\begin{array}{r} 73 \\ \times 27 \\ \hline \end{array}$$

+

$$\begin{array}{r} 84 \\ \times 36 \\ \hline \end{array}$$

+

$$\begin{array}{r} 95 \\ \times 28 \\ \hline \end{array}$$

+

$$\begin{array}{r} 66 \\ \times 47 \\ \hline \end{array}$$

+

$$\begin{array}{r} 253 \\ \times 24 \\ \hline \end{array}$$

+

$$\begin{array}{r} 308 \\ \times 65 \\ \hline \end{array}$$

+

$$\begin{array}{r} 845 \\ \times 35 \\ \hline \end{array}$$

+

$$\begin{array}{r} 651 \\ \times 25 \\ \hline \end{array}$$

+



Find the result of each of the following :

a $43 \times 35 =$

$$\begin{array}{r} 43 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

b $28 \times 94 =$

$$\begin{array}{r} 28 \\ \times 94 \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

c $112 \times 36 =$

$$\begin{array}{r} 112 \\ \times 36 \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

d $378 \times 35 =$

$$\begin{array}{r} \times \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

e $132 \times 75 =$

$$\begin{array}{r} \times \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

f $267 \times 18 =$

$$\begin{array}{r} \times \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

g $508 \times 85 =$

$$\begin{array}{r} \times \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

h $209 \times 55 =$

$$\begin{array}{r} \times \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

i $436 \times 19 =$

$$\begin{array}{r} \times \\ \hline \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array}$$

Put the suitable sign (<) , (>) or (=) in the blanks

a 38×16 380×16

b 36×67 63×67

c 328×64 321×58

d 261 tens 216×10

e $30 \times 1\,400$ 42 thousands

f 47×88 $4\,136$

g 819×74 $35\,410 + 25\,194$

h 67×609 607×69



Mohamed saves P.T. 3 455 monthly.
Calculate how much money he saves in 9 months.

A primary school is formed of 19 classes of 45 pupils each.
Calculate the total number of the pupils

A man bought 398 metres of cloth for L.E. 45 per metre
Find the total cost price.

Ministry of Education distributed 425 computers for each
administration. Find the total number of computers
for 12 administrations.

A man wanted to build a house for his family. He bought
15 tons of building steel for L.E. 7 356 a ton and 48 tons of
cement for L.E. 475 a ton. How much did the man pay ?

Sara bought a bedroom. She paid L.E. 2 850, then
she paid 20 installments each for L.E. 250.
Find the price of the bedroom.

A merchant had 2 465 pounds. He bought 35 boxes
of soft drink for L.E. 47 each.
How much money was left with him ?



1 Find the product of each of the following :

$$\begin{array}{r} 148 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2579 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 753 \\ \times 12 \\ \hline \end{array}$$

$$977 \times 25 = \dots\dots$$

$$338 \times 17 = \dots\dots$$

2 Choose the correct answer between brackets :

[a] Two thousand \times 53 = (106 thousand or 53 thousand or 53 million)

[b] 8 000 hundred thousands = { 8 milliards or 8 millions or 800 millions }

[c] The number seventy thousand , five hundred and ninety-four in digits is (700 594 or 70 594 or 750 094)

[d] The value of the digit 6 in the number 276 148 is (6 000 or 600 000 or 60 000)

[e] The smallest 7-digit number is (7 000 000 or one million or 9 999 999)

3 [a] Write the following numbers in letters :

(1) 1 815 637 409

(2) 98 723 614

[b] Arrange the following numbers in a descending order :

3 521 764 , 994 318 , 5 764 849 and 2 millions

The order is : , , and

4 Join with the equal result :

75 145

75 144

75 143

75 146

1 084 572 - 1 009 429

35 \times 2 147

21 898 + 53 246

9 393 \times 8

5 If 30 passengers travelled to Hurghada by air and the price of the ticket was L.E. 215 How much money did all the passengers pay ?



Dividing by a 2-digit number

$$4 \overline{) 16}$$

$$7 \overline{) 17}$$

$$8 \overline{) 29}$$

$$9 \overline{) 27}$$

$$6 \overline{) 42}$$

$$2 \overline{) 16}$$

$$5 \overline{) 45}$$

$$5 \overline{) 41}$$

$$3 \overline{) 14}$$

$$9 \overline{) 81}$$

$$8 \overline{) 35}$$

$$5 \overline{) 35}$$

$$7 \overline{) 38}$$

$$6 \overline{) 28}$$

$$5 \overline{) 20}$$

$$5 \overline{) 30}$$

$$7 \overline{) 35}$$

$$5 \overline{) 28}$$

$$4 \overline{) 12}$$

$$2 \overline{) 11}$$

$$8 \overline{) 75}$$

$$6 \overline{) 22}$$

$$5 \overline{) 22}$$

$$6 \overline{) 25}$$



$$\begin{array}{r} 3 \overline{) 21} \\ \hline \end{array}$$

$$\begin{array}{r} 4 \overline{) 12} \\ \hline \end{array}$$

$$\begin{array}{r} 6 \overline{) 54} \\ \hline \end{array}$$

$$\begin{array}{r} 8 \overline{) 48} \\ \hline \end{array}$$

$$\begin{array}{r} 2 \overline{) 16} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \overline{) 35} \\ \hline \end{array}$$

$$\begin{array}{r} 7 \overline{) 63} \\ \hline \end{array}$$

$$\begin{array}{r} 9 \overline{) 72} \\ \hline \end{array}$$

$$\begin{array}{r} 3 \overline{) 13} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \overline{) 42} \\ \hline \end{array}$$

$$\begin{array}{r} 7 \overline{) 50} \\ \hline \end{array}$$

$$\begin{array}{r} 9 \overline{) 20} \\ \hline \end{array}$$

$$\begin{array}{r} 2 \overline{) 11} \\ \hline \end{array}$$

$$\begin{array}{r} 4 \overline{) 33} \\ \hline \end{array}$$

$$\begin{array}{r} 6 \overline{) 45} \\ \hline \end{array}$$

$$\begin{array}{r} 8 \overline{) 65} \\ \hline \end{array}$$

$$\begin{array}{r} 2 \overline{) 19} \\ \hline \end{array}$$

$$\begin{array}{r} 3 \overline{) 27} \\ \hline \end{array}$$

$$\begin{array}{r} 4 \overline{) 28} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \overline{) 25} \\ \hline \end{array}$$

$$\begin{array}{r} 6 \overline{) 48} \\ \hline \end{array}$$

$$\begin{array}{r} 7 \overline{) 46} \\ \hline \end{array}$$

$$\begin{array}{r} 8 \overline{) 58} \\ \hline \end{array}$$

$$\begin{array}{r} 9 \overline{) 45} \\ \hline \end{array}$$



$$4 \overline{) 168}$$

$$7 \overline{) 175}$$

$$8 \overline{) 296}$$

$$6 \overline{) 432}$$

$$2 \overline{) 196}$$

$$5 \overline{) 425}$$

$$3 \overline{) 144}$$

$$9 \overline{) 387}$$

$$8 \overline{) 352}$$

$$7 \overline{) 385}$$

$$6 \overline{) 282}$$

$$5 \overline{) 220}$$



$$7 \overline{) 3024}$$

$$3 \overline{) 2526}$$

$$5 \overline{) 1125}$$

$$9 \overline{) 4248}$$

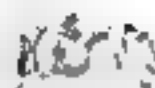
$$8 \overline{) 3320}$$

$$6 \overline{) 4230}$$

$$4 \overline{) 2028}$$

$$2 \overline{) 1712}$$

$$3 \overline{) 627}$$



$$592 \div 2 = \dots$$



$$891 \div 9 = \dots$$



$$996 \div 6 = \dots$$



$$4455 \div 9 = \dots$$



$$6584 \div 8 = \dots$$



$$1930 \div 5 = \dots$$



$$4362 \div 3 = \dots$$



$$6712 \div 4 = \dots$$



$$6314 \div 7 = \dots$$





Complete :

* If $423 \times 5 = 2115$ then $2115 \div 5 =$
 $2115 \div 423 =$

* If $529 \times 7 = 3703$ then $3703 \div 7 =$
 $3703 \div 529 =$

* If $483 \times 9 = 3627$ then $3627 \div 9 =$
 $3627 \div 483 =$

* Complete :

$445 \div 5 = 89$	$455 \div 7 = 65$
$845 \div 5 = 169$	$707 \div 7 = 101$
$846 \div 6 = 141$	$624 \div 8 = 78$
$5 \times 213 = 1065$	$7 \times 814 = 5698$
$8 \times 429 = 3432$	$3 \times 751 = 2253$
$6 \times 552 = 3312$	$4 \times 123 = 492$

There are 6 pencils in a box. How many boxes can be filled with 456 pencils ?
 How many pencils will be left over ?

A hotel has 552 rooms divided equally among 6 floors .
 How many rooms are there in each floor ?



Dividing by a 2-digit number

$$51 \overline{) 204}$$

$$63 \overline{) 252}$$

$$75 \overline{) 450}$$

$$85 \overline{) 425}$$

$$32 \overline{) 224}$$

$$43 \overline{) 387}$$

$$36 \overline{) 144}$$

$$47 \overline{) 282}$$

$$58 \overline{) 232}$$

$$45 \overline{) 326}$$

$$23 \overline{) 173}$$

$$49 \overline{) 255}$$

$$15 \overline{) 105}$$

$$27 \overline{) 243}$$

$$51 \overline{) 470}$$

$$55 \overline{) 505}$$

$$97 \overline{) 776}$$

$$46 \overline{) 243}$$

$$\begin{array}{r} 36 \overline{) 288} \\ \underline{} \end{array}$$

$$\begin{array}{r} 35 \overline{) 70} \\ \underline{} \end{array}$$

$$\begin{array}{r} 12 \overline{) 60} \\ \underline{} \end{array}$$

$$\begin{array}{r} 24 \overline{) 120} \\ \underline{} \end{array}$$

$$\begin{array}{r} 28 \overline{) 252} \\ \underline{} \end{array}$$

$$\begin{array}{r} 65 \overline{) 325} \\ \underline{} \end{array}$$

$$\begin{array}{r} 75 \overline{) 345} \\ \underline{} \end{array}$$

$$\begin{array}{r} 85 \overline{) 777} \\ \underline{} \end{array}$$

$$\begin{array}{r} 63 \overline{) 441} \\ \underline{} \end{array}$$

$$\begin{array}{r} 44 \overline{) 396} \\ \underline{} \end{array}$$

$$\begin{array}{r} 85 \overline{) 765} \\ \underline{} \end{array}$$

$$\begin{array}{r} 17 \overline{) 136} \\ \underline{} \end{array}$$

$$\begin{array}{r} 72 \overline{) 606} \\ \underline{} \end{array}$$

$$\begin{array}{r} 27 \overline{) 228} \\ \underline{} \end{array}$$

$$\begin{array}{r} 32 \overline{) 300} \\ \underline{} \end{array}$$

$$\begin{array}{r} 35 \overline{) 70} \\ \underline{} \end{array}$$

$$\begin{array}{r} 21 \overline{) 84} \\ \underline{} \end{array}$$

$$\begin{array}{r} 29 \overline{) 174} \\ \underline{} \end{array}$$



$$51 \overline{) 1224}$$

$$62 \overline{) 1488}$$

$$73 \overline{) 3869}$$

$$84 \overline{) 3108}$$

$$95 \overline{) 4085}$$

$$42 \overline{) 2856}$$

$$31 \overline{) 1674}$$

$$75 \overline{) 3225}$$

$$62 \overline{) 2914}$$

$$81 \overline{) 1944}$$

$$93 \overline{) 1581}$$

$$64 \overline{) 1600}$$



Divide :

$$51 \overline{) 11934}$$

$$62 \overline{) 20088}$$

$$73 \overline{) 31463}$$

$$84 \overline{) 26460}$$

$$95 \overline{) 9690}$$

$$42 \overline{) 13104}$$

$$31 \overline{) 10323}$$

$$75 \overline{) 7875}$$

$$62 \overline{) 12648}$$

A car uses one litre of petrol to cover 15 kilometres.
How many litres does the car need to cover 570 kilometres ?

There are 36 pencils in a box. How many boxes
can be filled with 2 458 pencils ?
How many pencils will be left over ?

Ahmed bought a TV set for L.E. 1 660. He paid L.E. 340
and the rest was divided on 24 equal installments.
Find the value of each installment.
the rest $1660 - 340 = 1320$
the value of each installment, $1320 \div 24 = 55$

Adel bought a flat in a housing tower for L.E. 168 940.
He paid L.E. 100 000 as a down payment and the rest
on 18 equal installments.
Find the value of each installment.

Sally bought 26 metres of cloth for 286 pounds.
Find the price of 8 metres of the same cloth.



1 Find the quotient of each of the following :

[a] $1\,792 \div 7 =$

[b] $5\,112 \div 36 =$

[c] $4\,920 \div 8 =$

[d] $72\,408 \div 42 =$

2 Choose the correct answer between brackets :

[a] $257 \div 50 = 5$ and the remainder is (7 or 8 or 9)

[b] $4\,004 \div 52$ 6×13 (> or = or <)

[c] The place value of the digit 7 in the number 3 751 200 is
(millions or hundred thousands or ten thousands)

[d] The greatest 10-digit number is
(9 999 999 999 or ten milliard or 999 999 999)

[e] $(521\,764 \div 739\,648) - \text{one million} =$
(1 261 412 or 361 412 or 261 412)

3 Put (✓) for the correct statement and (x) for the incorrect one and correct the incorrect one :

[a] $225 \div 25 = 8$ ✓ ()

[b] $1\,515 \div 14 = 108$, the remainder = 3 ()

[c] If : $56 \times 23 = 1\,288$, then , $1\,288 \div 23 = 56$ ()

[d] The smallest number formed from the digits
5 , 8 , 4 , 7 , 0 , 2 and 3 is 2 345 780 ()

[e] 6×4 millions < $40 \times 1\,000\,000$ ()

4 A group of 328 tourists is divided into 8 buses. Find the number of tourists that can each bus carry?

5 [a] Find the number which if we multiply by 39 , the result will be 2 457
The number is

[b] Find the number which if we divide by 43 , the quotient will be 117
The number is

Unit 2

Geometry

- Lesson 1:** Relation between Two Straight Lines and Geometric Constructions
- Lesson 2:** Polygons
- Lesson 3:** The Triangle
- Lesson 4:** The Circle
- Lesson 5:** Applications

Exercise

Relation between Two Straight Lines and Geometric Constructions

Write the relation between the two straight lines under each figure

intersecting and not perpendicular

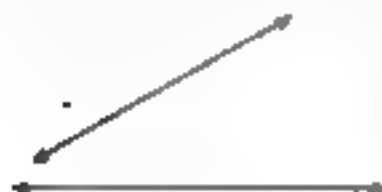
intersecting and perpendicular

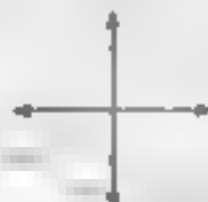
parallel











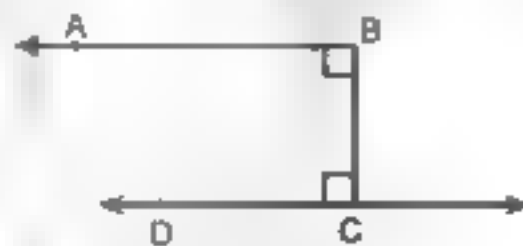


In the opposite figure, complete using "||" or "⊥":

☐ $\overline{AB} \parallel \overline{CD}$

☐ $\overline{CB} \parallel \overline{CD}$

☐ $\overline{AB} \parallel \overline{BC}$



In the opposite figure, complete:

☐ $\overline{AF} \parallel$

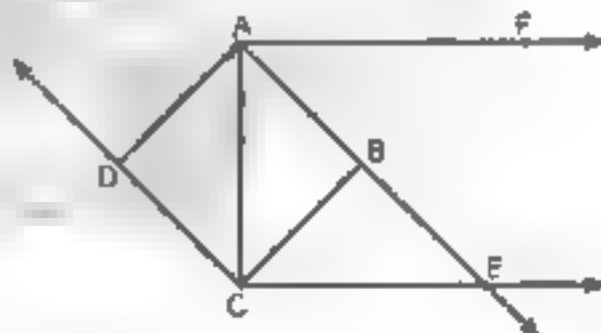
☐ $\overline{AB} \parallel$

☐ $\overline{AD} \perp$

☐ $\overline{CE} \perp$

☐ \overline{AE} intersects \overline{CE} at the point

☐ \overline{AF} intersects \overline{AD} at the point



In the opposite figure , complete using " \parallel " or " \perp " :

a $\overline{AC} \parallel \overline{AB}$

b $\overline{AE} \parallel \overline{BC}$

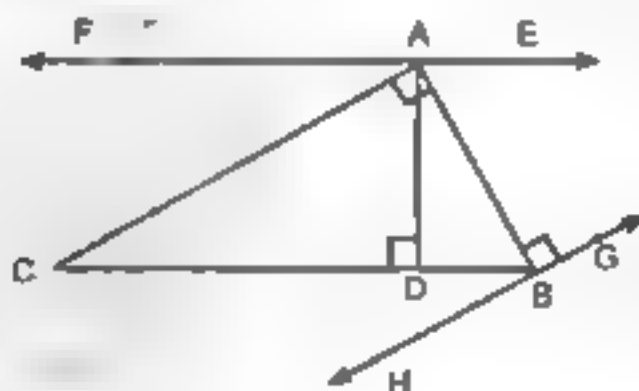
c $\overline{BH} \parallel \overline{AB}$

d $\overline{AD} \parallel \overline{CB}$

e $\overline{HB} \parallel \overline{AC}$

f $\overline{DA} \parallel \overline{FE}$

g $\overline{BC} \parallel \overline{FE}$



Notice the opposite figure , then complete :

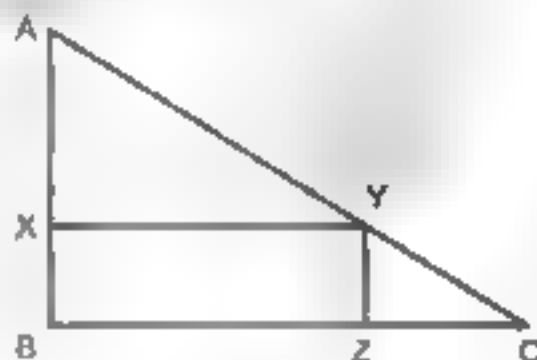
a $\overline{AB} \perp \overline{BC}$ (\perp or \parallel)

b $\overline{AB} \parallel \overline{YZ}$ (\perp or \parallel)

c $\overline{XY} \parallel \overline{BC}$ (\perp or \parallel)

d \overline{AY} intersects \overline{BZ} at the point

e \overline{YC} intersects \overline{BX} at the point



Choose the correct answer between brackets , using the opposite figure :

a $\overline{AB} \perp$ (\overline{DC} or \overline{AD} or \overline{XY})

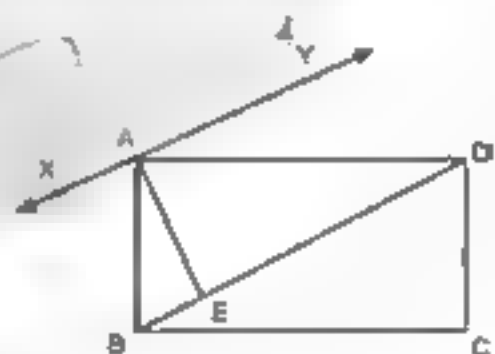
b $\overline{AE} \perp$ (\overline{BD} or \overline{AB} or \overline{BC})

c $\overline{BC} \parallel$ (\overline{CD} or \overline{AE} or \overline{AD})

d $\overline{DC} \parallel$ (\overline{AE} or \overline{AB} or \overline{XY})

e $\overline{XY} \parallel$ (\overline{BC} or \overline{AD} or \overline{BD})

f $\overline{YX} \perp$ (\overline{AE} or \overline{AB} or \overline{AD})





Choose the correct answer between brackets :

- a** Any two straight lines that never intersect are called
(perpendicular or parallel. or intersecting and not perpendicular)
- b** Any two lines that intersect at a point and make four right angles are called
(parallel. or intersecting and not perpendicular. or perpendicular.)
- c** The two intersecting lines intersect at
(one point. or two points. or zero points.)
- d** The two parallel lines intersect at
(two points. or zero points. or one point.)
- e** The two intersecting lines make angles. (2 or 4 or 5)
- f** If one angle at the intersection point of the two lines is acute angle ,
then the two lines are called
(perpendicular. or intersecting and not perpendicular or parallel.)
- g** If one angle at the intersection point of the two lines is right angle, then
the two lines are called
(parallel. or perpendicular or intersecting and not perpendicular.)
- h** If one angle at the intersection point of the two lines is obtuse angle ,
then the two lines are called
(perpendicular. or intersecting and not perpendicular or parallel)

Draw a perpendicular and a parallel

Draw $CD \perp AB$ in the following :

. C



. C

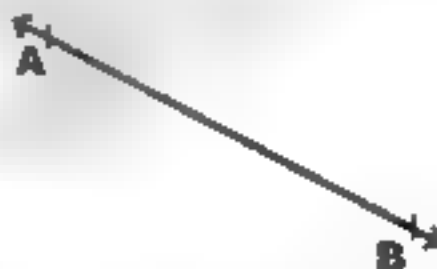
. C



. C

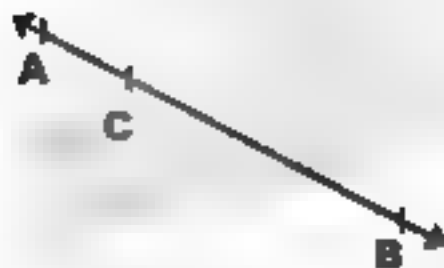
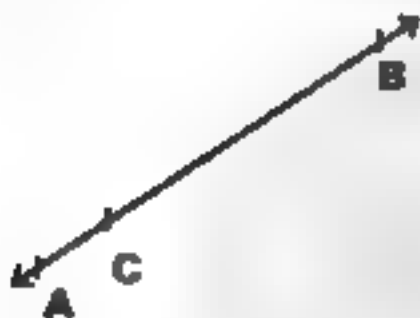


. C



. C

Draw $\overleftrightarrow{CD} \perp \overleftrightarrow{AB}$ in the following :





Draw $\overleftrightarrow{CD} \parallel \overleftrightarrow{AB}$ in the following :

C



C



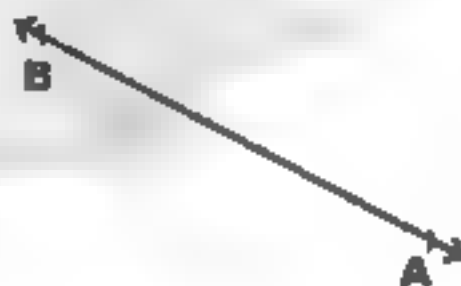
C

C



C

C





- 1 Write "Intersecting and not perpendicular , perpendicular or parallel" under each of the following figures :

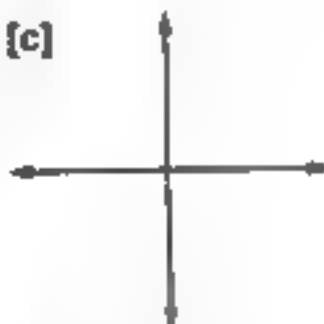
[a]



[b]



[c]



- 2 Draw a perpendicular to \overline{AB} from the shown point in each of the following figures :

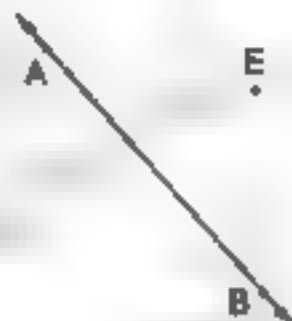
[a]



[b]



[c]



- 3 In the opposite figure , complete :

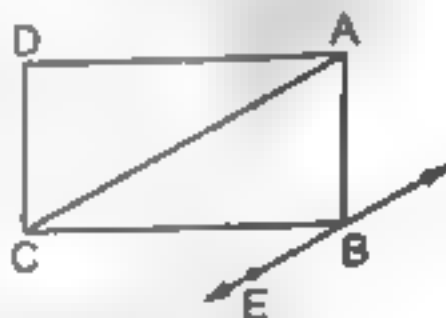
[a] The figure ABCD is called

[b] $\overline{AB} \parallel$ _____

[c] $\overline{AB} \perp$ _____ and _____

[d] $\overline{AC} \parallel$ _____

[e] $\overline{AD} \perp$ _____ and _____



- 4 Complete :

[a] The place value of the digit 7 in the number 375 214 is

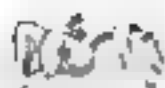
[b] $3\,543\,218 + 5\,738\,512 =$

[c] $970\,146 - 175\,558 =$

[d] The number of right angles formed from the intersecting of two perpendicular lines are

[e] The two lines which can not intersect are called

- 5 In a school if 756 pupils are distributed equally on 18 classes.
Find the number of pupils in each class.



Exercise

2

Polygons

Join each figure to the its name :



Rectangle

Trapezium

Triangle

Rhombus

Square

Parallelogram

Complete :

- The polygon which has four sides is called a
- The hexagon is a polygon with sides , but the is a polygon with three sides.
- The number of vertices of the hexagon -
- In the square , all angles are angles.
- The two diagonals of the rectangle are and
- In the parallelogram , every two opposite sides are and
- Each two opposite sides are parallel in and
- Each two opposite sides are equal in length in and
- The four sides are equal in length in and
- The four angles are right in and
- The two diagonals in and are equal in length and bisect each other.
- The quadrilateral has diagonals.

3 Put (✓) for the correct statement and (X) for the incorrect one and correct the mistake :

- a** The sides of the square are equal in length ()
- b** The angles of the rectangle are right. ()
- c** The opposite sides in the parallelogram are parallel. ()
- d** The diagonals of the rectangle are not equal in length. ()
- e** The rhombus has only one pair of parallel sides. ()
- f** The polygon which has no diagonals is a triangle ()
- g** The measure of any angle of the square = 45° ()
- h** The polygon which has five angles is called a heptagon ()
- i** The two diagonals of the square are perpendicular ()
- j** The number of sides of any polygon is equal to the number of its vertices. ()

4 Write only one difference between each of the following

- a** The square and the rectangle
- b** The rhombus and the parallelogram.
- c** The square and the cube

**S** Draw :

- a** The square ABCD with side length 6 cm.
- b** The rectangle XYZL with dimensions 3 cm and 5 cm.
- c** The square MNOP of side length 3 cm.
- d** The rectangle EFGH where $EF = 8$ cm and $FG = 5$ cm.

6 Draw the square ABCD whose side length is 4 cm. , then complete :

a $AB = \dots = \dots = \dots = \dots$ cm

b $\overline{AB} \parallel \dots$ and $\overline{BC} \parallel \dots$

c $\overline{AB} \perp \dots$, $\overline{CD} \perp \dots$

and $\overline{BD} \perp \dots$

7 Draw the rectangle ABCD where $AB = 4$ cm and $BC = 3$ cm. , then draw the two diagonals \overline{AC} and \overline{BD}

Find using the ruler

the length of \overline{AC} and \overline{BD} :

\overline{AC}

\overline{BD}

8 Draw the rectangle XYZL in which its dimensions are 5 cm and 2 cm. , then complete :

a $XY = \dots = \dots$ cm,

and $YZ = \dots = \dots$ cm.

b $\overline{XY} \parallel \dots$ and $\overline{XY} \perp \dots$

c $\overline{YZ} \parallel \dots$ and $\overline{YZ} \perp \dots$

9 Draw the rectangle ABCD of length 10 cm, and of width equal to $\frac{1}{2}$ its length, then find its perimeter



1 Complete :

- [a] In the square , the two diagonals are _____ , _____ and _____
 [b] In the rectangle , all angles are _____ angles.
 [c] In the parallelogram , each two opposite sides are _____ and _____
 [d] The four sides are equal in length in _____ and _____
 [e] A quadrilateral that has only one pair of parallel sides is called _____

2 Put (✓) for the correct statement and (x) for the incorrect one "with correcting the incorrect one" :

- [a] The greatest 7-digit number is 9 000 000 ()
 [b] The two perpendicular lines make 4 acute angles. ()
 [c] $256 \times 38 = 9\,728$ ()
 [d] The number of sides of a pentagon is 7 ()
 [e] The number of diagonals of the rhombus is 2 ()

3 [a] An aeroplane can carry 364 passengers per trip.

How many passengers can the aeroplane carry in 18 trips ?

.....

- [b] **Ayman bought 98 metres of cloth for L.E. 45 per metre.**
Find the total cost price.

4 Draw the rectangle XYZL in which $XY = 4$ cm. and $YZ = 3$ cm. , then draw the two diagonals \overline{XZ} and \overline{YL} , then complete :

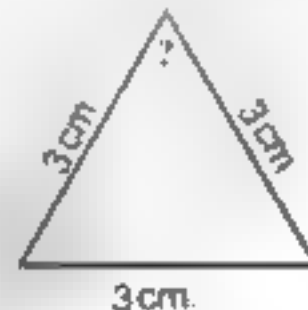
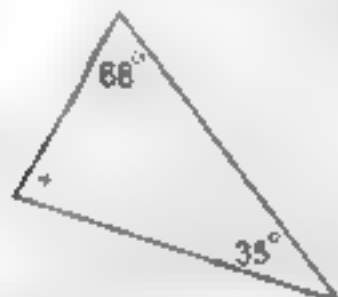
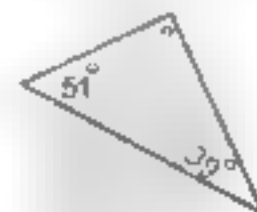
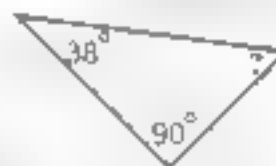
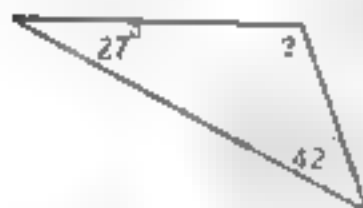
- [a] $XZ =$ cm.
 [c] $\overline{XY} \parallel$
 [b] $YL =$ cm.
 [d] $\overline{YZ} \perp$ and

5 Draw the square ABCD with side length 4 cm.

Exercise

The Triangle

In each of the following triangles, find the measure of the angle that marked with " ? " without using the protractor





Which of the following can be measures of the angles of a triangle ?

a $m(\angle X) = 53^\circ$, $m(\angle Y) = 72^\circ$ and $m(\angle Z) = 55^\circ$

b $m(\angle F) = 70^\circ$, $m(\angle R) = 56^\circ$ and $m(\angle H) = 60^\circ$

c $m(\angle Q) = 33^\circ$, $m(\angle S) = 44^\circ$ and $m(\angle T) = 103^\circ$

d $m(\angle A) = m(\angle B) = 40^\circ$ and $m(\angle C) = 88^\circ$

In the triangle ABC , if $m\angle A = 88^\circ$, $m\angle B = 40^\circ$
then $m\angle C =$ _____

In the triangle ABC , if $m\angle A = 103^\circ$, $m\angle B = 33^\circ$
then $m\angle C =$ _____

In the triangle XYZ, if $m\angle X = m\angle Y$ and $m\angle Z = 80^\circ$
Find the measure of $\angle X$ and $\angle Y$

In the triangle XYZ, if $m\angle X = m\angle Y$ and $m\angle Z = 100^\circ$
Find the measure of $\angle X$ and $\angle Y$

In the triangle XYZ, if $m\angle X = m\angle Y = m\angle Z$
Find the measure of $\angle X$, $\angle Y$ and $\angle Z$

Types of Triangles

Determine the type of the triangles that the measures of their angles as the following .

- | | |
|----------------------------------------------------------------------------------------------|-------------------|
| a $m(\angle E) = 30^\circ$, $m(\angle F) = 90^\circ$ and $m(\angle G) = 60^\circ$. | -angled triangle" |
| b $m(\angle I) = 30^\circ$, $m(\angle J) = 40^\circ$ and $m(\angle K) = 110^\circ$. | -angled triangle" |
| c $m(\angle S) = 51^\circ$, $m(\angle T) = 67^\circ$ and $m(\angle U) = 62^\circ$. | -angled triangle" |
| d $m(\angle L) = 32^\circ$, $m(\angle N) = 58^\circ$ and $m(\angle M) = 90^\circ$. | -angled triangle" |
| e $m(\angle X) = 46^\circ$, $m(\angle Y) = 38^\circ$ and $m(\angle Z) = 96^\circ$. | -angled triangle" |
| f $m(\angle H) = m(\angle B) = 70^\circ$ and $m(\angle A) = 40^\circ$. | -angled triangle" |
| g $m(\angle A) = m(\angle B) = 45^\circ$ and $\angle C$ is a right angle. . | -angled triangle" |
| h $m(\angle D) = 66^\circ$ and $m(\angle E) = \frac{1}{2} m(\angle D)$. | -angled triangle" |

Determine the type of the triangles according to their side lengths using the following data :

- | | |
|----------------------------------------------------------------|-----------|
| a $AB = 6$ cm , $BC = 7$ cm. and $CA = 6$ cm | triangle" |
| b $XY = 4$ cm , $YZ = 8$ cm. and $ZX = 5$ cm | triangle" |
| c $NO = 3$ cm , $OR = 3$ cm. and $RN = 3$ cm | triangle" |
| d $MA = AY = 9$ cm. and $YM = 10$ cm | triangle" |
| e $AM = 10$ cm. , $MR = 7$ cm and $RA = \frac{1}{2} AM$ | triangle" |
| f $m(\angle A) = m(\angle B) = m(\angle C) = 60^\circ$ | triangle" |

Complete using < , = or >

- | | |
|---------------------------------------------------|-----------------------------------------------------------|
| a The measure of the obtuse angle , | the measure of the straight angle |
| b The measure of the straight angle | the sum of measures of the interior angles of a triangle |
| c The sum of measures of two acute angles | the sum of measures of the interior angles of a triangle |
| d The sum of measures of two right angles | the sum of measures of the interior angles of a triangle. |
| e The sum of measures of two obtuse angles | the sum of measures of the interior angles of a triangle |



Complete :

- a The triangle is a polygon that has _____ sides and _____ angles
- b The equilateral triangle is a triangle whose sides are _____
- c Any triangle has at least _____ acute angles.
- d The sum of measures of the interior angles of a triangle is _____
- e The sum of measures of the two acute angles in the right-angled triangle is _____
- f The triangle ABC is an equilateral triangle where $AB = 5 \text{ cm}$, then $AC = \dots\dots\dots \text{ cm}$, and $BC = \dots\dots\dots \text{ cm}$
- g The measure of each angle in the equilateral triangle is _____
- h In the triangle ABC , if $m(\angle A) = 57^\circ$ and $m(\angle B) = 46^\circ$, then $m(\angle C) = \dots\dots\dots$
- i In the triangle XYZ , if $m(\angle X) = 70^\circ$ and $m(\angle Y) = m(\angle Z)$, then $m(\angle Z) = \dots\dots\dots$
- j In the triangle ABC , if $m(\angle A) = 27^\circ$ and $m(\angle B) = 2 m(\angle C)$, then $m(\angle C) = \dots\dots\dots$

Choose the correct answer from those between brackets :

- a If the side lengths of a triangle are different , then the triangle is called _____ triangle. (acute - angled or isosceles or scalene)
- b The triangle whose side lengths are 7 cm , 4 cm and 7 cm is called _____ triangle (equilateral or isosceles or scalene)
- c The triangle whose side lengths are 8 cm , 6 cm and _____ cm is called scalene triangle (8 or 6 or 4)
- d The sum of measures of the interior angles of a triangle is twice of measure of _____ angle (straight or right or acute)
- e 50° , 70° and 60° are the measures of angles of _____ triangle (obtuse - angled or right - angled or acute - angled)

Measure then complete :

$AB = \dots$ cm , $BC = \dots$ cm , $AC = \dots$ cm

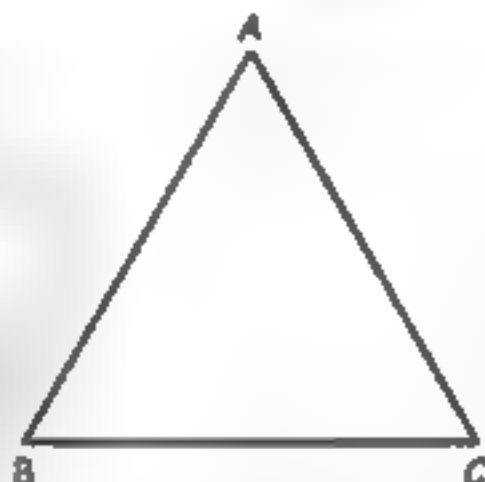
The type of triangle according to its sides

Is

$m\angle A = \dots^\circ$, $m\angle B = \dots^\circ$, $m\angle C = \dots^\circ$

The type of triangle according to its angles

Is



Measure then complete .

$XY = \dots$ cm , $YZ = \dots$ cm , $XZ = \dots$ cm

The type of triangle according to its sides

Is

$m\angle X = \dots^\circ$, $m\angle Y = \dots^\circ$, $m\angle Z = \dots^\circ$

The type of triangle according to its angles

Is



Measure then complete .

$XY = \dots$ cm , $YZ = \dots$ cm , $XZ = \dots$ cm

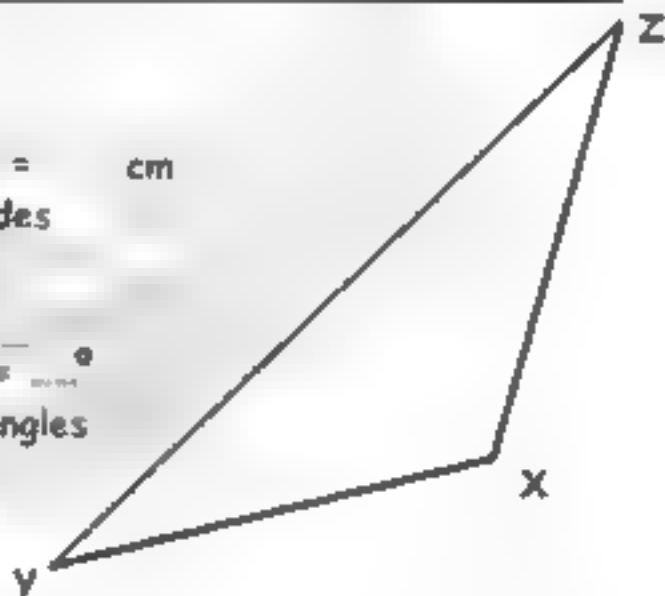
The type of triangle according to its sides

Is

$m\angle X = \dots^\circ$, $m\angle Y = \dots^\circ$, $m\angle Z = \dots^\circ$

The type of triangle according to its angles

Is



Draw the triangle ABC in which $AB = 4$ cm , $AC = 7$ cm, and $m(\angle A) = 65^\circ$

Draw the triangle LMN in which $LM = 3$ cm , $MN = 4$ cm, and $m(\angle M) = 90^\circ$, then find the length of LN and calculate the perimeter of the triangle.

Draw the triangle XYZ in which $XY = YZ = 6$ cm, and $m(\angle Y) = 60^\circ$, find :

- a** The length of \overline{XZ}
- b** The type of the triangle according to the lengths of its sides.
- c** The type of the triangle according to the measures of its angles.



Draw $\triangle DEF$ in which $DE = 5$ cm, $EF = 6$ cm, and $m(\angle E) = 80^\circ$

- a What is the sum of the measures of the two angles $\angle FDE$ and $\angle DFE$?
- b Use the protractor to find $m(\angle DFE)$
- c Calculate $m(\angle FDE)$ "without measuring"
- d What is the type of $\triangle DEF$ according to
 - the measures of its angles
 - the lengths of its sides.

Draw the triangle ABC in which $AB = BC = 4$ cm, and $m(\angle B) = 70^\circ$ and determine the type of the triangle ABC according to the measures of its angles and to the lengths of its sides.

- the type of the triangle ABC according to
 - the measures of its angles
 - the lengths of its sides.



Draw $\triangle ABC$ in which $AB = 6$ cm. , $m(\angle A) = 50^\circ$ and $m(\angle B) = 75^\circ$

Draw $\triangle XYZ$ in which $XZ = 10$ cm. , $m(\angle X) = 30^\circ$ and $m(\angle Z) = 60^\circ$,
then find the length of \overline{YZ}

Draw the triangle XYZ in which $XY = 5$ cm. and $m(\angle X) = m(\angle Y) = 60^\circ$,
then find :

a $m(\angle Z)$

b The length of \overline{YZ} =

The length of \overline{ZX} =

c The type of the triangle
according to the measures
of its angles.



Draw the triangle ABC in which $AB = 10$ cm, $m(\angle A) = 55^\circ$ and $m(\angle B) = 35^\circ$, then find .

- a The measure of $\angle C$
- b The type of the triangle ABC according to the measures of its angles and to the lengths of its sides.

Draw the triangle XYZ which is right-angled at Y, $YZ = 5$ cm, and $m(\angle Z) = 60^\circ$. Find the length of XZ , then without using the protractor, find $m(\angle X)$

Draw $\triangle LMN$ in which $MN = 6$ cm, $m(\angle M) = 40^\circ$ and $m(\angle N) = 70^\circ$

- a find $m(\angle L)$
- b What is the type of the triangle according to the measures of its angles ?



1 Complete :

- [a] The triangle whose side lengths are 5 cm. , 6 cm and 5 cm. is called triangle.
- [b] 20° , 60° and 100° are the measures of angles of - angled triangle.
- [c] The measure of each angle in the equilateral triangle is
- [d] The sum of measures of the interior angles of a triangle equals
- [e] In $\triangle ABC$, if $m(\angle A) = 50^\circ$ and $m(\angle B) = 40^\circ$, then the type of the triangle ABC according to the measures of its angles is triangle.

2 Put (✓) for the correct statement and (x) for the incorrect one "with correcting the incorrect one" :

- [a] If ABC is a triangle in which $m(\angle B) = 98^\circ$, then it is said to be a right-angled triangle ()
- [b] If XYZ is a triangle in which $m(\angle X) = 120^\circ$ and $m(\angle Y) = 45^\circ$, then $m(\angle Z) = 15^\circ$ ()
- [c] $534 \div 3 = 178$ ()
- [d] $374\,521 + 625\,479 =$ one million ()
- [e] The value of the circled digit in the number 8 2(4)7 635 is 400 000 ()

3 Draw the triangle ABC in which $AB = 3$ cm. , $BC = 4$ cm. and $m(\angle B) = 90^\circ$ Measure the length of \overline{AC} , then calculate the perimeter of the triangle ABC

4 Draw the triangle XYZ in which $XY = 5$ cm. and $m(\angle X) = m(\angle Y) = 60^\circ$ then find :

- [a] $m(\angle Z)$
- [b] The length of each of \overline{YZ} and \overline{ZX}
- [c] The type of the triangle according to its sides and its angles.

5 Hazem bought 26 books from the book fair , if the price of one book is P.T. 725 Find the money that Hazem paid.



1 Name the solid you can form from each figure :

[a]



[b]



[c]



2 Complete each of the following :

[a] The place value of the digit 6 in the number 3 612 904 is

[b] 8 million , 42 thousand and 40 =

[c] $7\,839\,641 + 209\,679 =$

[d] All sides of the square are in length.

[e] In the triangle XYZ , $m(\angle X) = 40^\circ$, $m(\angle Y) = 30^\circ$, then $\triangle XYZ$ is angled triangle.

3 [a] Draw the rectangle

XYZL in which

$XY = 5\text{ cm.}$ and

$YZ = 2\text{ cm.}$

[b] Arrange the following numbers in an ascending order :

1 milliard , 200 213 968 , 458 251 and 1 million

4 Find the result of each of the following :

[a] $634\,271 - 271\,629 =$

[b] $7\,105 + 35 =$

[c] $645 \times 42 =$

[d] $854 \div 2 =$

5 A hotel has 192 rooms distributed equally among some floors.
Each floor has 16 rooms. How many floors are there in this hotel ?

Unit 3

Multiples, Factors and Divisibility

Lesson 1: Multiples

Lesson 2: Divisibility

Lesson 3: Factors and Prime Numbers

Lesson 4: Common Factors

and Highest Common Factor (H.C.F.)

Lesson 5: Common Multiples

and Lowest Common Multiple (L.C.M.)

Exercise

Multiples

Underline each number of the following that is a multiple of the number 2: 17, 5, 28, 4, 13, 2, 20

Underline each number of the following that is a multiple of the number 3: 4, 15, 21, 3, 10, 12, 22

Underline each number of the following that is a multiple of the number 5: 23, 15, 40, 51, 5, 8, 20

Write all the multiples of the number 3 between 10 and 20.

Write all the multiples of the number 5 between 14 and 44.

Write all the multiples of the number 2 that are less than 10.

Write all the multiples of the number 3 that are less than 20.

Write all the multiples of the number 5 that are less than 30.

Complete.

$12 = 3 \times \dots$ hence the number 12 is a multiple of
and also considered a multiple of

$28 = 7 \times \dots$ hence the number 28 is a multiple of
and also considered a multiple of

$45 = 5 \times \dots$ hence the number 45 is a multiple of
and also considered a multiple of

Write the multiples of the two numbers 2 and 5 that are less than 50

Write the multiples of the two numbers 2 and 3 that are less than 30.



Join each number to its multiples.

2

3

5

7

8

11

12

15

21

30

Write a number greater than 20 that is a multiple of both 2 and 4 and also a multiple of their product 8.

Write a number greater than 20 that is a multiple of both 2 and 4 and not a multiple of their product 8.

Complete with the multiples of 10 as the example.

Example: $50 < 57 < 60$

a $\dots < 24 < \dots$

b $\dots < 11 < \dots$

c $\dots < 43 < \dots$

d $\dots < 76 < \dots$

e $\dots < 69 < \dots$

f $\dots < 95 < \dots$

Complete with the multiples of 5 as the example

Example: $20 < 23 < 25$

a $\dots < 17 < \dots$

b $\dots < 8 < \dots$

c $\dots < 32 < \dots$

d $\dots < 66 < \dots$

e $\dots < 81 < \dots$

f $\dots < 94 < \dots$

If the number of pupils in a class is a multiple of both 2 and 3 that is included between 30 and 40. How many pupils are there in the class?

An alarm clock rings regularly every two hours, while another one rings every 3 hours. If the two alarms ring together at 12 o'clock, at what time will they ring together after that?



- 1 Underline between brackets the multiples of the desired number in each of the following :

- [a] 2 (8 , 7 , 5 , 10 , 11 , 4 , 9)
 [b] 7 (4 , 14 , 70 , 8 , 21 , 7 , 6)
 [c] 4 (5 , 8 , 10 , 0 , 14 , 16 , 6)
 [d] 5 (10 , 14 , 2 , 5 , 15 , 30 , 4)

- 2 Complete :

- [a] The number _____ is a multiple of all numbers.
 [b] The number 24 is a multiple of 3 because : _____ = _____ × _____
 [c] If $44 = 11 \times$ _____ , then the number 44 is a multiple for the number _____ and also a multiple of the number _____
 [d] One million is the smallest number formed from _____ digits
 [e] 7 millions = _____ ten thousands.

- 3 [a] Write the multiples of 6 which lying between 20 and 50

- [b] Draw the square ABCD in which $AB = 3$ cm.

- 4 Put ($>$) , ($=$) or ($<$) :

- [a] $3\,795\,146$ $3\,785\,164$ [b] $2\,000 \times 6$ 120 thousands.
 [c] $78 + 6$ $117 \div 9$ [d] $241\,376 + 758\,624$ one billion.

- 5 Marwan bought a car for L.E. 24 960 He paid L.E. 12 000 in cash and the rest was divided into 24 equal monthly instalments. Find the value of each instalment.



Exercise

2

Divisibility

Complete the following table :

Division	Quotient	Remainder	Divisible / not divisible
45 ÷ 5			45 5
24 ÷ 4			24 4
60 ÷ 7			60 7
78 ÷ 6			78 6
35 ÷ 4			35 4
81 ÷ 9			81 9
28 ÷ 7			28 7
19 ÷ 4			19 4
120 ÷ 4			120 4
154 ÷ 5			154 5
245 ÷ 5			245 5

Circle the number which is divisible by 2

30	65	97	54	26	151	368
45	212	127	641	258	654	239
78	216	925	743	250	2544	1119

Circle the number which is divisible by 3

45	36	28	456	558	652	100
154	368	554	1002	2005	12748	445
457	777	891	4054	3332	4668	411

Circle the number which is divisible by 5

45	36	250	156	558	354	101
154	830	940	630	2005	12748	55551
150	110	147	758	335	1208	54441



use the following numbers to complete .

325 532 711 650 345 762 900

the numbers which are divisible by 2 :

the numbers which are divisible by 3 :

the numbers which are divisible by 5 :

the numbers which are divisible by 6 :

the numbers which are divisible by 10 :

the numbers which are divisible by 15 :

use the following numbers to complete .

120 246 435 110 625 112 333

the numbers which are divisible by 2 :

the numbers which are divisible by 3 :

the numbers which are divisible by 5 :

the numbers which are divisible by 6 :

the numbers which are divisible by 10 :

the numbers which are divisible by 15 :

Complete the table using (✓) or (X)

Number	Divisible by					
	2	3	5	6	10	15
45						
44						
32						
64						
24						
30						
625						
126						
175						
130						
120						
345						
456						
2610						



1 Use the numbers 816 , 720 , 4 955 and 1 239 to complete :

[a] The numbers divisible by 2 are

[b] The numbers divisible by 3 are

[c] The numbers divisible by 5 are

2 Complete :

[a] 9 million , 215 thousand and eight =

[b] The value of the digit 5 in the number 156 861 432 is

[c] $704 \times 1\,000 = \dots \times 10$ [d] $\dots - 2\,315\,604 = 4\,164\,293$

[e] In the isosceles triangle there are equal sides in length.

3 Put (✓) for the correct statement and (x) for the incorrect one :

[a] The measure of each angle in the square is 60° ()

[b] 30 is divisible by 6 because $6 \times 5 = 30$ ()

[c] The number 4 003 is divisible by 3 ()

[d] The two diagonals of the parallelogram are parallel. ()

[e] All even numbers are divisible by 2 ()

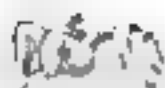
4 In his birthday , Khaled bought 7 boxes of soft drinks for P.T. 5 880
How much did each box cost ?

5 Draw the triangle ABC in which $AB = 3\text{ cm.}$, $AC = 6\text{ cm.}$ and $m(\angle A) = 60^\circ$
Find :

[a] $m(\angle C)$ (By measuring)

[b] The type of the triangle
ABC according to
its angles measures

.....
its side lengths another.



Exercise

Factors and
Prime Numbers

Factorize the following numbers to its *factors*:

12 , 15 , 16 , 24 , 48 , 60 , 64 , 72 , 120 , 150 , 200

12

12 =

12 =

12 =

the *factors* of 12 are

15

16

24

48

60



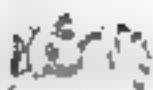
64

72

120

150

200



Circle the prime numbers :

7 , 15 , 8 , 31 , 51 , 13 , 41 , 23 , 65 , 72 , 87 , 111

Write the prime numbers between 20 and 30

Write the prime numbers between 30 and 40 .

Write the prime numbers between 40 and 50 .

- Complete .
- The prime number has only
 - The smallest prime number is
 - The smallest prime odd number is
 - The smallest prime even number is
 - All prime numbers are numbers except the number
 - The number 1 is not a prime number because
 - The number 6 is not a prime number because



1 Put (✓) for the correct statement and (x) for the incorrect one :

- [a] The number 7 has two factors only. ()
- [b] 6 is a factor of the number 63 ()
- [c] The factors of the number 18 are 2 , 3 , 6 , 9 and 18 only. ()
- [d] The number 11 has two factors only. ()
- [e] 0 is a factor of all numbers. ()

2 Complete :

- [a] The factors of the number 14 are
- [b] The number 20 has . factors only
- [c] The number . has 1 factor only.
- [d] The factors of the number 21 are
- [e] The number . is a factor of all numbers.

3 Choose the correct answer :

- [a] The value of the digit 5 in the number 456 789 is
(50 000 or 5 000 or 500)
- [b] The number . is divisible by 3 (128 or 13 or 24)
- [c] 100° , 50° and 30° are the measures of - angled triangle.
(acute or right or obtuse)
- [d] The number of sides of the pentagon = (4 or 5 or 6)
- [e] If : $79 \times 18 = 1\,422$, then : $1\,422 \div 18 =$ (79 or 18 or 36)

4 Draw the square $XYZL$ with side length 5 cm and draw the two diagonals \overline{XZ} and \overline{LY}

5 A fruitseller bought a box of apples weighing 24 kg.

If the price of the box was 120 pounds , find the price of one kg.

Exercise

4

Common Factors for Two or more Numbers and Highest Common Factor (H.C.F.)

Factorize the following number to its prime factors

12 , 15 , 16 , 24 , 48 , 60

12

15

12 =

15 =

16

24

16 =

24 =

48

60

48 =

60 =



Factorize the following number to its prime factors

64 , 72 , 120 , 150

64

72

64 =

72 =

120

150

120 =

150 =

What is the number which has these prime factors 2,2,3 and 5

What is the number which has these prime factors 2,3,3 and 5

What is the number which has these prime factors 2,2,5 and 5

What is the number which has these prime factors 2,2,2 and 5



1 [a] Underline the prime numbers of the following :

5 , 2 , 21 , 23 , 9 , 1 , 43 and 33

[b] Factorize each of the following numbers to its prime factors :

(1) 27

(2) 64

(3) 84

$$27 = \dots$$

$$64 = \dots$$

$$64 = \dots$$

$$84 = \dots$$

2 Complete :

[a] The smallest prime number is

[b] The prime number has only factors.

[c] The prime factors of the number 18 are

[d] The smallest number whose prime factors are 2 , 3 , 5 and 7 is

[e] is the only even prime number.

3 Choose the correct answer between brackets :

[a] The prime number between 6 and 10 is (7 or 8 or 9)

[b] The number of factors of 4 is (4 or 1 or 3)

[c] $7\,050 \div 75 =$ (92 or 93 or 94)

[d] 2 064 is not divisible by (2 or 3 or 5)

[e] The numbers 2 , 3 , 5 and 7 are called numbers.
(odd or prime or even)



4 Find the result of each of the following :

[a] $6\ 122\ 017 + 121\ 345 = ..$

[b] $876 \times 35 =$

[c] One million $- 213\ 984 =$

[d] $6\ 642 \div 54 = ...$

5 [a] Nada bought 25 metres of cloth, the price of one metre P.T. 475
How much money did Nada pay ?

[b] Draw the triangle LMN in which $m(\angle M) = 30^\circ$, $m(\angle N) = 50^\circ$ and $MN = 6\text{ cm}$. Find :

(1) $m(\angle L)$

(2) the type of the triangle LMN according to the measures of its angles.

Find the H.C.F for each of the following
25 and 15

$$25 = 5 \times 5$$

$$15 = 3 \times 5$$

$$\text{H.C.F.} = 5$$

20 and 30

$$20 = 2 \times 2 \times 5$$

$$30 = 2 \times 3 \times 5$$

$$\text{H.C.F.} = 10$$

36 and 48

$$36 = 2 \times 2 \times 3 \times 3$$

$$48 = 2 \times 2 \times 2 \times 2 \times 3$$

$$\text{H.C.F.} = 12$$

24 and 16

$$24 = 2 \times 2 \times 2 \times 3$$

$$16 = 2 \times 2 \times 2 \times 2$$

$$\text{H.C.F.} = 8$$

Find the H.C.F for each of the following

16 and 12

$$16 = 2 \times 2 \times 2 \times 2$$

$$12 = 2 \times 2 \times 3$$

$$\text{H.C.F.} = 2 \times 2 = 4$$

32, 48 and 64

$$32 = 2 \times 2 \times 2 \times 2 \times 2$$

$$48 = 2 \times 2 \times 2 \times 2 \times 3$$

$$64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2$$

$$\text{H.C.F.} = 2 \times 2 \times 2 \times 2 = 16$$

24, 40 and 56

$$24 = 2 \times 2 \times 2 \times 3$$

$$40 = 2 \times 2 \times 2 \times 5$$

$$56 = 2 \times 2 \times 2 \times 7$$

$$\text{H.C.F.} = 2 \times 2 \times 2 = 8$$

15, 18 and 21

$$15 = 3 \times 5$$

$$18 = 2 \times 3 \times 3$$

$$21 = 3 \times 7$$

$$\text{H.C.F.} = 3$$

1 Complete :

- [a]** The H.C.F. of 18 and 27 is
- [b]** The H.C.F. of 12 , 42 and 60 is
- [c]** The H.C.F. of 35 and 20 is
- [d]** _____ is a common factor for all numbers
- [e]** The prime factors of 45 are

2 Choose the correct answer between brackets :

- [a] The H.C.F. of 7 and 56 is (1 or 7 or 56)
- [b] The H.C.F. of 60 , 30 and 45 is (5 or 10 or 15)
- [c] 231 is divisible by (2 or 3 or 5)
- [d] The two diagonals of the parallelogram are
(bisecting each other or equal in length or orthogonal)
- [e] The triangle whose side lengths are 6 cm , 3 cm and 6 cm is called
(scalene or equilateral or isosceles)

3 [a] Write the prime numbers that lying between 2 and 30

- [b] List the prime factors of 60**

- [c] Factorize 84 to its prime factors**



4 Find the result of each of the following :

[a] $541\ 923 + 672\ 340 =$

[b] $584\ 753 - 293\ 895 =$

[c] $675 \times 9 =$

[d] $3\ 445 \div 65 =$

5 [a] Find the H.C.F. of the numbers 18 , 30 and 42

$18 =$

$30 =$

$42 =$

18

30

42

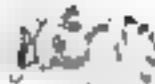
H.C.F. =

=

[b] If the price of 26 metres of cloth is L.E. 286

Find the price of 18 metres.

.....



Exercise

Common Multiples for Two or more Numbers and Lowest Common Multiples (L.C.M.)

Find H.C.F. and L.C.M for :
25 and 10

$$25 = 5 \times 5$$

$$10 = 2 \times 5$$

$$\text{H.C.F.} = 5$$

$$\text{L.C.M.} = 50$$

24 and 16

$$24 = 2 \times 2 \times 2 \times 3$$

$$16 = 2 \times 2 \times 2 \times 2$$

$$\text{H.C.F.} = 8$$

$$\text{L.C.M.} = 48$$

14 and 21

$$14 = 2 \times 7$$

$$21 = 3 \times 7$$

$$\text{H.C.F.} = 7$$

$$\text{L.C.M.} = 42$$

18, 27 and 9

$$18 = 2 \times 3 \times 3$$

$$27 = 3 \times 3 \times 3$$

$$9 = 3 \times 3$$

H.C.F. =

L.C.M. =

15, 30 and 20

$$15 = 3 \times 5$$

$$30 = 2 \times 3 \times 5$$

$$20 = 2 \times 2 \times 5$$

H.C.F. =

L.C.M. =

Find the L C M for the numbers $(5 \times 7 \times 3)$ and $(2 \times 5 \times 7)$

$$5 \times 7 \times 3 = 105$$

$$2 \times 5 \times 7 = 70$$

$$105 = 3 \times 5 \times 7$$

$$70 = 2 \times 5 \times 7$$

$$\text{L.C.M.} = 2 \times 3 \times 5 \times 7 = 210$$

Find the L C M for the numbers $(2 \times 3 \times 5 \times 7)$ and $(3 \times 3 \times 7)$

$$2 \times 3 \times 5 \times 7 = 210$$

$$3 \times 3 \times 7 = 63$$

$$210 = 2 \times 3 \times 5 \times 7$$

$$63 = 3 \times 3 \times 7$$

$$\text{L.C.M.} = 2 \times 3 \times 3 \times 5 \times 7 = 630$$



1 Find the H.C.F. and the L.C.M. of each of the following :

[a] 12 and 14

[b] 18 and 20

[c] 28 and 42

[d] 8 , 12 and 24

..... =
..... =

H.C.F. =

L.C.M. =

..... =
..... =

H.C.F. =

L.C.M. =

..... =
..... =

H.C.F. =

L.C.M. =

..... =
..... =

H.C.F. =

L.C.M. =



2 Put (✓) for the correct statement and (x) for the incorrect one :

- [a] The L.C.M. of 8 and 15 is 24 ()
- [b] The L.C.M. of 4, 8 and 14 is 56 ()
- [c] The smallest odd prime number is 1 ()
- [d] 5 280 is divisible by 2 and 5 but not divisible by 3 ()
- [e] All sides of the rhombus are equal in length ()

3 Complete :

- [a] The place value of the digit 2 in the number 2 813 594 is
- [b] $543\,572 - 412\,379 = ?$
- [c] $7\,105 \div \dots\dots\dots = 35$
- [d] The three sides are equal in length in the triangle.
- [e] The two diagonals are equal in length in and

4 [a] Put (<), (=) or (>) :

- (1) $245 \div 7$ [] 3×13
- (2) $5\,000 \div 3\,000$ [] 800 tens
- (3) The number of sides in any polygon [] the number of diagonals in the same polygon

[b] A theatre has 45 rows. Each row consists of 12 seats.
How many seats are there in the theatre ?

5 Draw the rectangle ABCD with dimensions 3 cm. and 4 cm. , then draw the two diagonals of the rectangle \overline{AC} and \overline{BD} , then complete :

- [a] $AC = \dots\dots\dots$ cm
- [b] The perimeter of the rectangle ABCD = cm.

Unit 4

Measurement

Lesson 1: Lengths

Lesson 2: Areas

Exercise

Lengths

1 Complete as in the example :

a $5 \text{ m} = \dots \text{ cm.}$

c $8 \text{ m} = \dots \text{ dm}$

e $8 \text{ km} = \dots \text{ m} \dots \text{ dm}$

g $8 \text{ m} = \dots \text{ cm} = \dots \text{ mm}$

i $\dots \text{ km} = 4\,000 \text{ m}$

k $\dots \text{ dm} = \dots \text{ cm} = 700 \text{ mm}$

m $8\,000 \text{ cm} = \dots \text{ m}$

o $4\,000 \text{ m} = \dots \text{ km} = \dots$

q $50\,000 \text{ dm} = \dots \text{ m} = \dots \text{ km}$

b $4 \text{ metres} = \dots \text{ centimetres.}$

d $3 \text{ cm} = \dots \text{ mm.}$

f $9 \text{ m} = \dots \text{ dm} = \dots \text{ cm.}$

h $2 \text{ dm} = \dots \text{ mm}$

j $\dots \text{ cm} = 3 \text{ m}$

l $\dots \text{ m} = 60 \text{ dm} = \dots \text{ cm}$

n $\dots \text{ km} = 2\,000 \text{ m} = \dots \text{ dm}$

p $4 \text{ km} = \dots \text{ m} = \dots \text{ cm}$

2 Arrange the following units of length in an ascending order :

a Kilometre , metre , millimetre and decimetre

b Centimetre , millimetre , kilometre and metre

3 Choose the suitable unit of measurement for measuring the following between brackets as in the example :

a The length of your trousers (mm, or km, or cm)

b The height of Cairo tower (m, or mm, or dm.)

c The distance between Cairo and Alexandria (mm, or dm, or km)

d The height of the class door. (mm, or km, or m.)

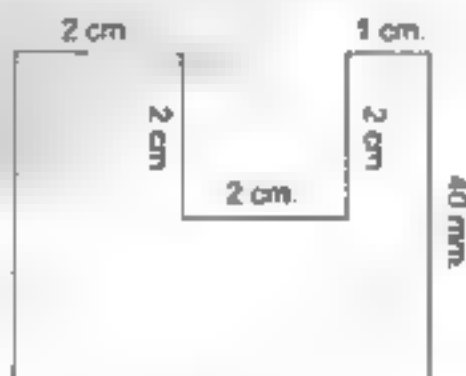
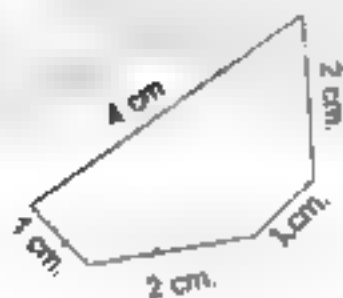
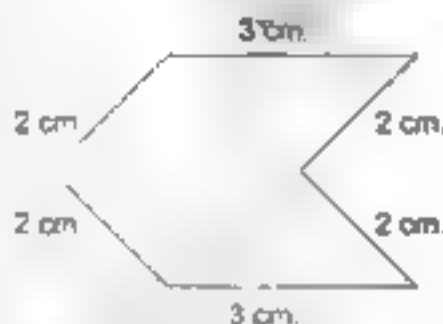
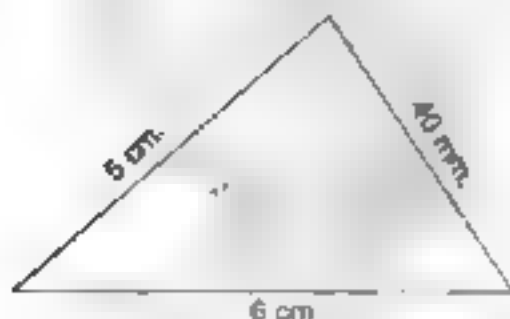
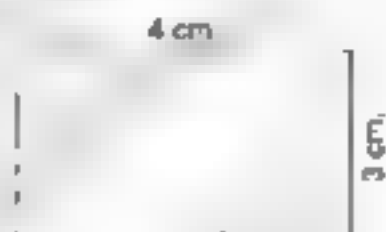
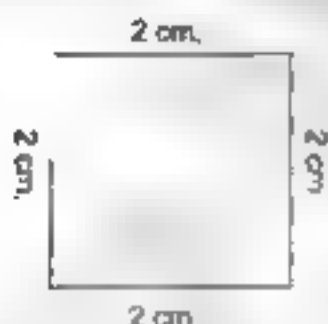
e The length of an ant (km, or mm, or m)

f The height of a pupil. (mm, or cm, or km)

Choose the closest answer to the right between brackets as in the example :

- a** The length of my school bus = (1 km. or 5 m. or 125 mm.)
b The length of your notebook = ($\frac{1}{4}$ km or 10 dm. or 22 cm)
c The height of my brother = (3 m. or 160 cm. or 160 mm.)
d The height of the greatest pyramid = (500 cm. or 150 m. or $\frac{1}{2}$ dm)
e The length of a taxi = (2 km. or 20 m. or 200 cm.)

Calculate the perimeter of the following figures :



Complete :

- The perimeter of a square = $\dots \times \dots$
- The perimeter of a rectangle = $(\dots + \dots) \times \dots$
- The side length of a square = \dots
- Half of the perimeter of a rectangle = \dots
- The perimeter of a square of side length 7 cm is \dots cm
- The perimeter of a rectangle with length 6 cm. and width 4 cm, is \dots cm
- The perimeter of a square of side length 2 dm is \dots cm.
- The perimeter of a rectangle with dimensions 1 m and 50 cm is \dots dm
- The side length of a square whose perimeter is 36 cm is \dots cm
- The width of a rectangle whose perimeter is 30 cm and its length is 11 cm is \dots cm.

Calculate the perimeter of each of the following :

- A square whose side length is 7 cm
 \dots
 \dots
- A rectangle whose length is 9 cm. and width is 6 cm.
 \dots
 \dots
- A square of side length 3 dm.
 \dots
 \dots
- A rectangle whose dimensions are 2 m. and 150 cm.
 \dots
 \dots

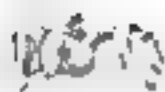
Find the side length of the square whose perimeter is 180 cm.

Calculate in centimetre, the side length of a square whose perimeter is 4 dm.

The sum of the perimeters of two squares is 100 dm. If the side length of one of them is 8 dm, find the side length of the other square in :

It is wanted to make a frame to a rectangular-shaped picture whose dimensions are 40 cm. and 60 cm. If the cost of one metre of the frame is 3 pounds, what is the cost of the frame ?

Find the difference between the perimeters of a square of side length 12 cm. and a rectangle with length 7 cm. and width 3 cm.



1 Complete :

[a] 9 km. = m.

[b] 3 m = dm. = cm.

[c] 70 dm. = m

[d] The perimeter of the square = ×

[e] The perimeter of the rectangle with dimensions 5 cm. and 7 cm. = cm.

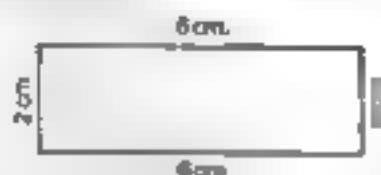
2 Calculate the perimeter of each of the following figures :

[a]



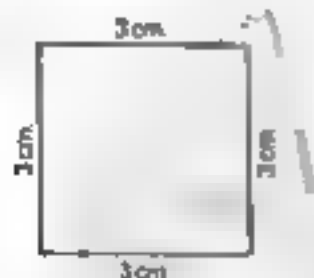
the perimeter =

[b]



the perimeter =

[c]



the perimeter =

[d]



the perimeter =

3 [a] Which is greater ?

The perimeter of a rectangle of length 7 cm and width 4 cm.
or the perimeter of a square of side length 5 cm

[b] Arrange the following numbers in an ascending order :

7 547 213 , 8 millions , 6 729 514 and 7 901 235

The order is : , , and



4 Put (✓) for the correct statement and (x) for the incorrect one :

- [a] The side length of a square = $\frac{\text{its perimeter}}{4}$ ()
- [b] 3 m. and 5 cm. = 350 cm. ()
- [c] The number 17 is a prime number. ()
- [d] The number 990 is divisible by 5 ()
- [e] The sum of the measures of the interior angles of a triangle is 108° ()

5 [a] Find the result of each of the following :

(1) $521 \times 68 =$

(2) $875\ 216 + 653\ 294 =$

(3) $27\ 945 \div 9 =$

(4) $7\ 625\ 136 - 4\ 588\ 677 =$

[b] Find the L.C.M. of 28 and 35

$\dots =$

$\dots =$

H.C.F. = \dots = \dots

L.C.M. = \dots = \dots



Exercise

The Area

1 Complete

a $3 \text{ m}^2 = \quad \text{dm}^2$

b $5 \text{ m}^2 = \quad \text{cm}^2$

c $8 \text{ dm}^2 = \quad \text{cm}^2$

d $7 \text{ m}^2 = \quad \text{dm}^2 = \quad \text{cm}^2$

e $600 \text{ dm}^2 = \quad \text{m}^2$

f $\frac{1}{2} \text{ km}^2 = \quad \text{m}^2$

g $9 \text{ km}^2 = \quad \text{dm}^2$

h $2\,700 \text{ dm}^2 = \quad \text{m}^2$

i $80\,000 \text{ cm}^2 = \quad \text{m}^2$

j $90\,000 \text{ cm}^2 = \quad \text{m}^2$

k $6\,000\,000 \text{ m}^2 = \dots\dots\dots \text{km}^2$

2 Choose the suitable unit of measurement for measuring the following between brackets

a The area of the Eastern Desert. (km^2 or cm^2 or dm^2)b The area of your photo (m^2 or km^2 or cm^2)c The area of the carpet in your room (mm^2 or m^2 or km^2)d The area of the playground of your school (km^2 or cm^2 or m^2)e The area of a page in your magazine (cm^2 or km^2 or m^2)

3 Choose the closest answer to the right between brackets

a The area of the flat where I live is (75 km^2 or 75 cm^2 or 75 m^2 or 75 dm^2)b The area of your cupboard is (80 m^2 or 66 km^2 or 3 m^2)c The area of the board in your class is (6 km^2 or 6 cm^2 or 6 m^2)d A pupil in primary 4 used his geometric instruments to draw a rectangle whose area in his notebook (12 m^2 or 12 dm^2 or 12 cm^2)e The area of the tile used in tiling our house is (25 dm^2 or 25 cm^2 or 25 m^2)



Complete :

- a** The area of a square = side length \times ..
- b** The area of a rectangle = .. \times ..
- c** The length of a rectangle = $\frac{\text{The area}}{\text{..}}$
- d** The area of a square whose side length is 5 cm is ..
- e** The width of a rectangle whose area is 18 dm^2 and its length is 6 dm. is ..
- f** If the perimeter of a square = 24 cm , then its area = ..
- g** The area of a rectangle whose dimensions are 13 cm. and 7 cm is ..
- h** If the area of a square is 9 cm^2 , then its side length = ..
- i** The area of a square is 1 dm^2 , then its side length = .. cm. and its perimeter = cm.
- j** The area of a rectangle is 48 cm^2 , the width of this rectangle is 6 cm. , then its length = .. cm and its perimeter = .. cm.

Put [$<$, $>$ or $=$] as in the example :

- a** 81 dm^2 $\text{ } < \text{ } 6\,400 \text{ cm}^2$
- b** 3 m^2 $\text{ } > \text{ } 500 \text{ dm}^2$
- c** The area of a square of side length 30 cm $\text{ } < \text{ } 9 \text{ dm}^2$
- d** The area of a square of side length 8 cm $\text{ } < \text{ }$ the area of a rectangle whose dimensions are 9 cm and 8 cm
- e** 3 km. $\text{ } \bigcirc \text{ } 300 \text{ m.}$

Calculate the area of :

- a** A square of side length 5 dm.
- b** A rectangle of dimensions 8 cm. and 5 dm.

c A square whose perimeter is 28 cm.

d A rectangle whose length is 4 times its width , and its width equals 8 cm.

11 If the sum of the perimeters of two squares is 48 cm. and the side length of one of them is 7 cm.

Find : **a** the side length of the second square.

b the sum of their areas.

If we have a rectangular-shape hall whose dimensions are 8 metres and 6 metres, how many tiles are needed to tile this hall , given that the side length of the required squared-shape tiles is 20 cm. ?

The length of a rectangle is three times its width. If its perimeter is 64 cm. , find its area in cm^2

The drawn figure is a rectangle whose dimensions are 9 cm. and 6 cm. A square of side length 4 cm. is cut from it.

- Calculate :
- a** The area of the remaining part by two different methods.
 - b** The perimeter of the remaining part.



1 Complete :

[a] $9 \text{ km}^2 = \dots\dots\dots \text{m}^2$ [b] $3 \text{ m}^2 = \dots\dots\dots \text{dm}^2 = \dots\dots\dots \text{cm}^2$

[c] The area of the square = $\dots\dots\dots \times \dots\dots\dots$

[d] The area of the rectangle = $\dots\dots\dots \times \dots\dots\dots$

[e] In the rectangle , each two opposite sides are $\dots\dots\dots$ in length.

2 [a] Calculate the area of each of the following figures :

(1)



the area = $\dots\dots\dots$
 $= \dots\dots\dots$

(2)



the area = $\dots\dots\dots$
 $= \dots\dots\dots$

[b] Find the perimeter and area of each of the following :

(1) A square with side length 5 cm.

$\dots\dots\dots$
 $\dots\dots\dots$

(2) A rectangle with length 8 cm. width 4 cm.

$\dots\dots\dots$
 $\dots\dots\dots$

3 Complete :

[a] 4 million , 87 thousand and 135 = $\dots\dots\dots$

[b] The place value of the digit 5 in the number 5 326 179 is $\dots\dots\dots$ and in the number 4 958 732 is $\dots\dots\dots$

[c] The factors of the number 35 are $\dots\dots\dots$

[d] $123 \times 15 = \dots\dots\dots$

[e] The prime number between 5 and 10 is $\dots\dots\dots$

- 4 [a]** Draw the square XYZL with side length 4 cm. , then calculate its perimeter and its area.

- [b]** A hotel contains 192 rooms divided equally by a number of floors, each floor has 16 rooms. How many floors are there in this hotel ?

.....

- 5 [a]** Find the result :

(1) $547\ 654 - 423\ 529 =$

(2) $645 \div 15 =$

- [b]** Find the H.C.F. and the L.C.M. of 12 and 18

H.C.F. =

L.C.M. =

H.C.F. = =

L.C.M. = =